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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/299,109	04/26/1999	ANTONIUS PAUL LEO MARIA WINTERS	SEID/0028	2837
26290 7590 04/30/2007 PATTERSON & SHERIDAN, L.L.P. 3040 POST OAK BOULEVARD SUITE 1500 HOUSTON, TX 77056			EXAMINER EL ARINI, ZEINAB	
			ART UNIT 1746	PAPER NUMBER
			MAIL DATE 04/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/299,109

Applicant(s)

WINTERS, ANTONIUS PAUL LEO
MARIA

Examiner

Zeinab E. EL-Arini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7, 9-21 and 40-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7, 9-21 and 40-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

The amendment and remarks filed on 4/18/07 have been acknowledged and entered.

The rejections stated in paper No. 20061211 have been withdrawn in view of applicant's amendment and remarks.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 43-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 43, line 3, "the direction" lacks antecedent basis.

In claim 45, line 1, "claim 44, impacting", is indefinite and confusing term. It is suggested that before "impacting", "further" should be inserted.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-7, 9- 21, and 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman et al. in combination with Haruch et al. (4,349,156)

Klosterman et al. (4,787,404), JP 57-154836 (JP'836), EP 548408 (EP408) and Meyer et al. (5,730,163).

3. Re. claims 2-7, 9-21, and 40, Klosterman et al. disclose low flow rate, low-pressure atomizer device. See the abstract, the figure and the document in general. The reference discloses using the atomizer device for removing the contaminants from the surface, and the nozzle device includes coaxial pores. See the abstract.

4. Klosterman et al. do not teach a downstream fluid port portion of the nozzle device is narrower than the upstream portion, the angle, the distance, attaching a rotating member to the nozzle device, the impacting step, the pressure and the ratio as claimed.

5. Haruch et al. disclose an atomizing spray nozzle. See the abstract, Figs. 1-3, cols. 1, 2, col. 3, lines 1-26, col. 5, lines 1-37, col. 6, lines 16-34, lines 52-68, and the claims. In Haruch et al. nozzle, a downstream fluid port portion of the nozzle device is narrower than the upstream portion. See the Figures. Haruch et al. disclose using the spray nozzle widely for spraying crop. See col. 1, lines 6-16. Haruch et al. do not teach the pressure and the ratio as claimed.

6. Meyer et al. disclose a method for cleaning a substrate using a spray of droplets against a surface of the substrate. See the document in general, specially the abstract, Fig. 1, col. 2, lines 18-67, col. 4, lines 4-11, col. 5, lines 22-52, and col. 6, lines 54-65.

7. It would have been obvious for one skilled in the art to use the coaxial bores taught by Klosterman et al. for washing crop taught by Haruch et al. and for removing

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dirt from a surface as claimed. This is because using spray nozzle for cleaning crop, in dishwasher, hard surfaces, a surface of a person is well known in the art.

8. One skilled in the art would use the metering pump and/or metering valve taught by Meyer et al. (see col. 2, lines 30-51, col. 3, lines 36-41, col. 5, lines 22-52, col. 6, lines 54-65) in the Klosterman et al. process to adjust the air and water pressure and the ratio to obtain optimum results. The pressure and the ratio between the air pressure and water pressure are depending on the surface to be cleaned and the amount of contaminants to be removed.

9. Re. claims 43-46, EP'408 discloses a rotating member to rotate a nozzle. See the abstract, the claims, and Fig. 1.

10. It would have been obvious to use the rotating nozzle taught by EP'408 in the Klosterman et al. device to enhance the cleaning process.

11. Re. claim 40, JP'836 discloses a method for washing substrates comprising atomizing pure water and air into a minute spray, and spraying onto a surface to be washed. See the abstract. The reference discloses a downstream fluid port portion of the nozzle device is narrower than the upstream portion. See the Figures.

12. It would have been obvious for one skilled in the art to use the lower portion of Klosterman et al. nozzle narrower than the upper portion as taught by JP'836 or Haruch et al, because it is a matter of design choice, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the

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art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant). Re. claims 41, 42, one skilled in the art would adjust the distance and the angle to obtain optimum results.

Response to Arguments

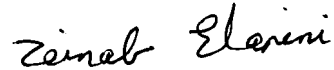
13. Applicant's arguments with respect to claims 2-7, 9-21, and 40-46 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeinab E. EL-Arini whose telephone number is (571) 272-1301. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Zeinab E. EL-Arini
Primary Examiner
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ZEE

04/26/07